

# HPSB series power supply unit

## Buffer, switch mode power supply unit 13,8V DC

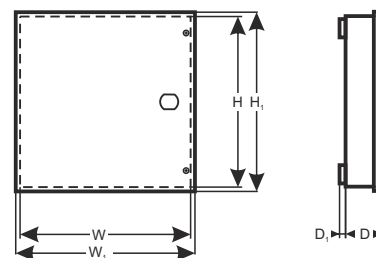


CODE: **HPSB 7012D** v.1.0/VIII  
TYPE: **HPSB 13,8V/6A/40Ah Buffer, switch power supply unit**

EN\*\*



GREEN POWER



### Features:

- DC 13,8V/6A uninterruptible power supply\*
- fitting battery: 40Ah/12V
- wide range of mains supply: 176÷264V
- high efficiency 80%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- jumper selectable battery charge current 1A/2A
- battery output full protection against short-circuit and reverse polarity connection
- LED indication
- protections:
  - SCP short-circuit protection
  - OVP overvoltage protection
  - overvoltage protection (AC input)
  - against sabotage
  - overload protection (OLP)
- warranty – 2 year from the production date

### DESCRIPTION

A buffer PSU is intended for an uninterrupted supply to devices requiring stabilised voltage of **12V DC (+/-15%)**. The PSU provides voltage of **U=13,8V DC**. Current efficiency:

**1. Output current 6A + 1A battery charge\***

**2. Output current 5A + 2A battery charge\***

**Total device current + battery: 7A max\*.**

In case of power decay, a battery back-up is activated immediately. The PSU is constructed based on the switch mode PSU, with high energy efficiency. The PSU is housed in a metal enclosure (colour RAL 9003) which can accommodate a 40Ah/12V battery. A micro switch indicates door opening (front cover).

\* Refer to chart 1

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SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V AC 50÷60Hz
Current up to	0,95A@230VAC
Supply power	100W max.
Efficiency	80%
Output voltage	13,8V DC – buffer operation 9,5V÷13,8V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}\text{C}$	<b>6A + 1A battery charge - refer to chart 1</b> <b>5A + 2A battery charge - refer to chart 1</b>
Output current $t_{AMB}=40^{\circ}\text{C}$	<b>4,9A + 1A battery charge - refer to chart 1</b> <b>3,9A + 2A battery charge - refer to chart 1</b>
Voltage adjustment range	12÷14VDC
Ripple	120mV p-p max.
Battery charge current	1A / 2A max. @ 40Ah ( $\pm 5\%$ ) – jumper selectable
Short-circuit protection SCP	electronic, automatic return
Overload protection OLP	105-150% of the PSU power, automatic return
Battery circuit protection SCP and reverse polarity connection	PTC polymer fuse
Surge protection	varistors
Overvoltage protection OVP	>16V (automatic recovery)
Excessive discharge protection UVP	$U < 9,5\text{V}$ ( $\pm 5\%$ ) – disconnect of connection battery
Sabotage protection: - TAMPER output indicating enclosure opening	- microswitch, NC contacts (enclosure closed), 0,5A@50V DC (max.)
LED indication	Yes
Operating conditions	2nd environmental class, $-10^{\circ}\text{C} \div 40^{\circ}\text{C}$
Enclosure	Steel plate DC01, thickness: 1,0mm, colour: RAL 9003
Dimensions	$W=320$ $H=350$ $D+D_1=173 + 8$ [ $\pm 2\text{mm}$ ] $W_1=325$ $H_1=355$ [ $\pm 2\text{mm}$ ]
Net/gross weight	5,2 / 5,5 kg
Fitting battery	40Ah/12V (SLA) max. 197x175x165mm (WxHxD) max
Closing	Cheese head screw x 2 (at the front), lock assembly possible
Declarations, warranty	CE, RoHS, 2 year from the production date
Notes	The enclosure does not adjoin the assembly surface so that cables can be led. Convectional cooling. Connectors: Power-supply: $\Phi 0,63 \div 2,5$ Battery output BAT: 6,3F-2,5.

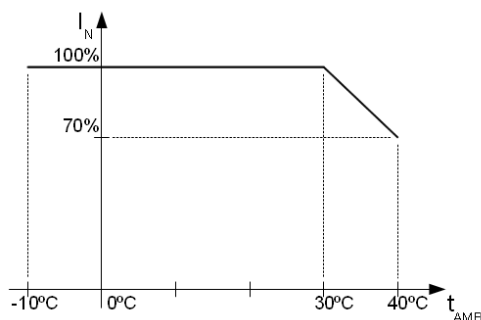


CHART 1. Acceptable output current from the PSU depending on ambient temperature.

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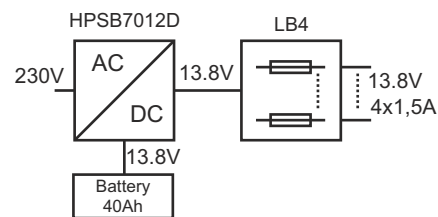
## Buffer, switch mode power supply unit 13,8V DC



### Optional configurations:

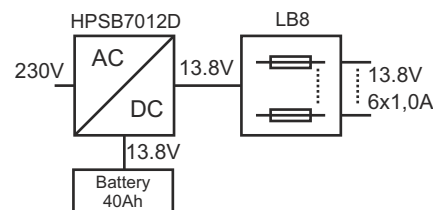
#### Buffer power supply unit HPSB 13,8V/4x1,5A/40Ah.

- HPSB7012D + LB4 4x1,5A (AWZ576) + 40Ah



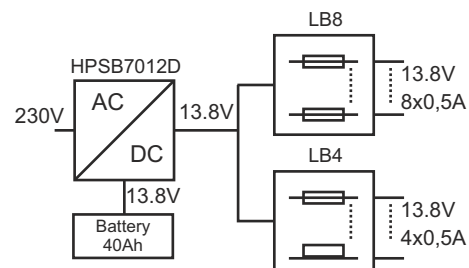
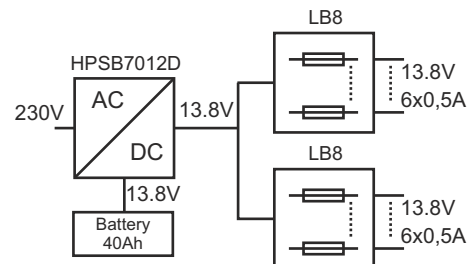
#### Buffer power supply unit HPSB 13,8V/6x1A/40Ah.

- HPSB7012D + LB8 6x1A (AWZ579 or AWZ580)+ 40Ah



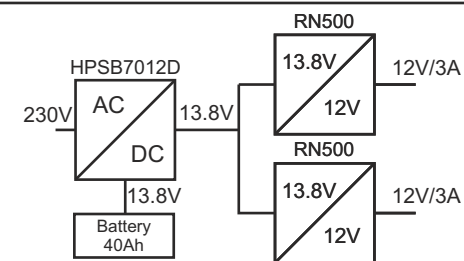
#### Buffer power supply unit HPSB 13,8V/12x0,5A/40Ah.

- HPSB7012D + 2xLB8 12x0,5A (AWZ578 or AWZ580) + 40Ah  
 - HPSB7012D + LB8 8x0,5A (AWZ578 or AWZ580)+LB4 4x0,5A (AWZ574 or AWZ576) + 40Ah



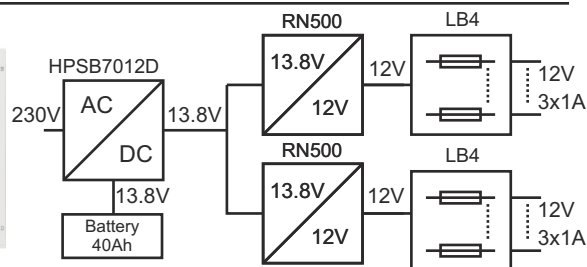
#### Buffer power supply unit HPSB 13,8V/2x12V/2x3A/40Ah.

- HPSB7012D + 2xRN500 (13,8V/12V) + 40Ah



#### Buffer power supply unit HPSB 13,8V/2x12V/6x1A/40Ah.

- HPSB7012D + 2xRN500 (13,8V/12V)+  
 2xLB4 6x1A (AWZ575 or AWZ576) + 40Ah



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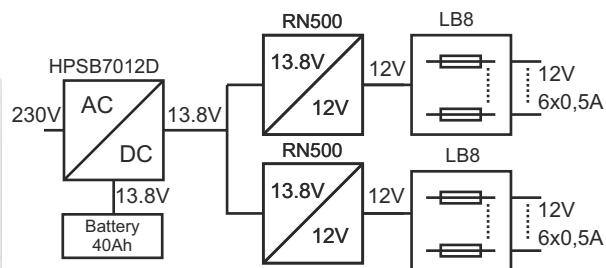
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### Optional configurations:

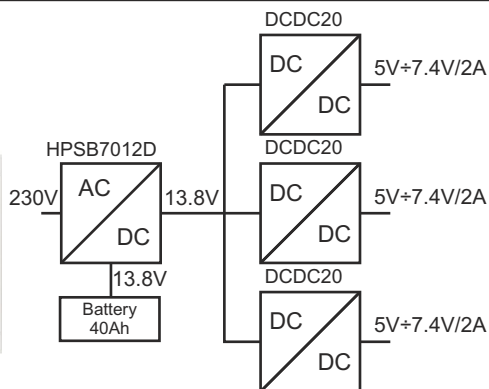
#### Buffer power supply unit HPSB 13,8V/2x12V/12x0,5A/40Ah.

- HPSB7012D + 2xRN500 (13,8V/12V)
- + 2xLB8 12x0,5A (AWZ578 or AWZ580) + 40Ah



#### Buffer power supply unit HPSB 13,8V/3x5V÷7,4V/3x2A/40Ah.

- HPSB7012D + 3xDCDC20 (3x5V÷7,4V/3x2A) + 40Ah



#### Buffer power supply unit HPSB 13,8V/3x5V÷7,4V/6x1A/40Ah.

- HPSB7012D + 3xDCDC20 (3x5V÷7,4V/3x2A)+3xLB2 6x1A (AWZ585 or AWZ586) + 40Ah

